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(72)Inventor : **KAWAMURA TAKESHI
OKAMOTO HIROSHI
KUDO TETSUICHI**

(54) ELECTRODE CATALYST FOR FUEL CELL

(57)Abstract:

PURPOSE: To obtain a highly active electrode catalyst for a methanol fuel cell which contains only a minute quantity of platinum by causing a carbide catalyst containing tungsten and molybdenum to carry a platinum-ruthenium catalyst.

CONSTITUTION: A 5% KOH aqueous solution containing chloroplatinic acid and ruthenium chloride is prepared; 10ml of the solution contains 0.5□5mg of Pt and 0.25□2.5mg of Ru. After 10g of a carbide containing tungsten and molybdenum in an atomic ratio of 4:1 is added to 10ml of the above solution, 5ml of 10% aqueous formaldehyde solution is gradually dropped into the solution while stirring it to reduce Pt and Ru into metals which are then deposited on the carbide, thereby obtaining an electrode catalyst for a methanol fuel cell. As a result, due to the synergistic effect of the Pt-Ru catalyst and the carbide catalyst, a highly active catalyst can be obtained by using only a minute quantity of platinum.

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